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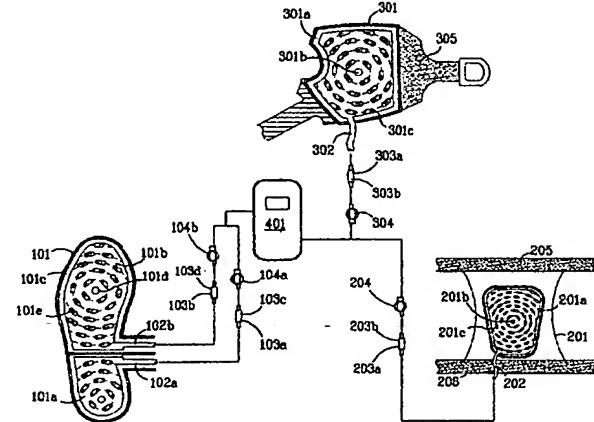
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(54) Title: A FORCE SENSOR SYSTEM FOR USE IN MONITORING WEIGHT BEARING



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(57) **Abstract:** A force sensor system for use in monitoring weight bearing on a location. The force sensor system comprises at least one a foot force sensor, a palm force sensor, and a knee force sensor. The foot force sensor comprises a flexible insole containing a plurality of inflatable pockets that are inflated with air or liquid. The palm force sensor and knee force sensor each comprise a wrap to be worn around the palm and knee, respectively. Each wrap comprises a pocket. Each pocket is connected to a tube that, in turn, connects with a pressure sensor and a connector coupling that is remote from the pocket. Each coupling contains a valve. The valve opens to allow inflation and deflation of each inflatable pocket. The pressure sensors measure the air or liquid pressure within each of the inflatable pockets, and convert the corresponding pressure signal into a suitable output signal medium, usually electrical signals. The output signal from the sensors provides accurate real time input data to a weight bearing biofeedback system or to control a stimulator for activation of an electronic orthosis to normalize dynamic gait patterns.